

W. J. Williams, Director, Division of
Production, Washington
R. W. Cook, Manager, Oak Ridge

June 23, 1950

Approved for Release to the Public
by:

Amy L. Rothrock 3/15/96
Amy L. Rothrock Date
DOE Privacy Act Officer COR

RALA SOURCE SHIPMENTS

SYMBOL: RMA:JS

ATTENTION: N. J. Carothers

This is to confirm a telephone conversation of June 21, 1950, between
Mr. Carothers and Mr. Kasschau of this office.

The present Rala production facility has been shut down following
shipment of Run No. 42, which was shipped to Los Alamos June 17, 1950.
The shutdown which will be until the first week in September has been
coordinated and was suggested by Los Alamos in order that it might
coincide with a similar shutdown of Rala processing facilities at
site Y. The shutdown will be used to make building and equipment
changes which have been previously approved by you.

Rala source No. 38 was produced from 76 Hanford slugs, chemical yield
was 77.66 percent, activity 4670 curies, and the material arrived at
Los Alamos on January 9, 1950.

The next run, No. 39, was not a production run but was a demonstration
at full Hanford level of an ion exchange process. A concentrated
radiobarium source was not produced, but the activity of the product
was approximately 1400 curies.

We will continue to advise you of shipments, but as suggested by you,
memoranda will be employed rather than teletypes?

R. W. Cook

3: Albert H. Holland, Jr., M.D.

hilling:vh

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This document has been reviewed for
classification and has been determined to
be UNCLASSIFIED

Aaron S. Lust
ADC Signature

3/12/96

Date

ChemRisk Document No. 2761

REPRODUCED AT THE NATIONAL ARCHIVES

ADMINISTRATIVE MARKING
E.O. 12065, Section 6-102
BY: KTB-NARS, Date: 2/17/2011

DECLASSIFICATION RECOMMENDATION

with the indicated

Name (ADC) - Organization

Date

3-28-96

Edward J. Bloch, Director, Division of
Production, Washington

S. R. Sapirie, Manager
Oak Ridge Operations Office

MATERIAL RELEASE IN BUILDING 9206 (u)

SYMBOL: OPA:EDM

DECLASSIFICATION AUTHORITY
GABRIEL MARCIANTE, ORO CLASSIFICATION OFFICER
NAME (ADD) - ORGANIZATION
3/29/96 AUG 9 1956

DATE
THIS DOCUMENT CONSISTS OF 2 PAGES.
NO. 12 OF 17 COPIES, SERIES A

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"DO NOT DESTROY"

Reference: Teletype from S. R. Sapirie to E. J. Bloch, (Symbol OPA:EDM-406),
dated May 11, 1956.

The investigation of the material release that occurred and was reported
on May 11, 1956, by referenced teletype, has been completed.

The release was caused by the rupture of the hydrogen feed line to the
gas phase hexafluoride to green salt reduction tower.
Apparently the copper tube failed in fatigue induced by vibrations.

The alarm circuits were not activated promptly because the rupture
occurred between the hydrogen sensing device and the reactor. This
situation has been remedied to prevent a recurrence of the incident.

No direct measurement was made of the quantity of hexafluoride released.
The estimates given below are considered reasonable and are indirectly
based on valid measurements of feed and product.

The quantity released was estimated from hold-up figures (receipts minus
removals) continually kept for the reactor involved. The average hold-up
from November 1, 1955, to May 1, 1956, was 3.5 Kg. uranium (37.5% ^{235}U).
The average hold-up from determinations made after the incident on
June 1, June 16 and July 1, 1956, was 11.0 Kg. uranium. The difference
of 7.5 Kg. has been designated as a measured loss, rather than material
unaccounted for.

The other material balance areas were satisfactory during the above periods. We believe the estimates to be valid.

The hexafluoride material escaped to the atmosphere where it was dispersed
and was blown about the building and out of the ventilation system by a
prevailing dispersion.

The Federal Bureau of Investigation was not notified of this release.

~~SECRET~~

~~RESTRICTED DATA~~

ChemRisk Document No. 2760

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Edward J. Bloch

- 2 -

AUG 9 1956

since it was considered in the "process loss" category.

Unless otherwise directed, we will consider the incident as satisfactorily terminated.

ORIGINAL SIGNED BY
E. A. WENDE

for S. R. Sapirie

CC: K. E. Fields, Washington
D. F. Hayes, Washington
J. A. Waters, Washington
D. F. Musser, Washington
N. H. Woodruff
F. P. Callaghan

Distribution:

1A & 2A - Edward J. Bloch
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10A - R. C. Armstrong w/d
11A - E. D. Marshall w/d
12A - NM Control Br. File



OFFICE ▶	Nuclear Matls Control Br.	Prod. Div.			Operations Manager
SURNAME ▶	Marshall	Edgar			
DATE ▶	8-3-56	8/15/56			

RECOMMENDED BY
Name (ADD) - Organization
Date

DECLASSIFIED

~~SECRET~~

ORIGINAL SIGNED BY
E. A. WENDE
E. R. Sapir

NOVEMBER 27, 1957

E. R. SAPIR, MANAGER
OAK RIDGE OPERATIONS

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NO. 7 OF 7 COPIES - SERIES 2

OS ARE
WASHINGTON, D. C.
FOR: E. J. BLOCH

"DO NOT DESTROY"

177688881.17

/INFO/ E. E. FIELDS, AEC, WASHINGTON

/INFO/ J. A. WATERS, AEC, WASHINGTON

/INFO/ D. F. HUSSEY, AEC, WASHINGTON

INITIAL REPORT OF UNUSUAL INCIDENT, INADVERTENT VENTING OF
TO ATMOSPHERE AT BUILDING 9206. PRELIMINARY MATERIAL BALANCE BASED ON
MEASURED FLED AND PRODUCT AND ESTIMATED IN-PROCESS AND WASTE, INDICATES
MAXIMUM LOSS OF SIX (6) KG. URANIUM. PRECISE BALANCE IS BEING DEVELOPED.
WILL BE COMPLETED ABOUT DECEMBER FIVE.

DIRECT CAUSE OF INCIDENT WAS FAILURE OF GASKET SEALING ON ONE ELECTROLYTIC
COMPONENTS, INSTALLED ON CALCIUM HYDROXIDE VESSEL ON LEFT SIDE OF REACTOR.
THIS VESSEL WAS INSTALLED AS A RESULT OF SIMILAR INCIDENT REPORTED ON
MAY 11, 1957. THIS VESSEL WAS, AND WHEN OPERATING WAS A PARTIAL VACUUM
DESIGNED TO BE CRASHED BY [REDACTED] IN THE CASE OF A
INTERLOCKED TO HEL, NITROGEN AND HYDROGEN FLAME TO SHUT DOWN REACTOR.
[REDACTED] COMPLETELY ON NOVEMBER 27, 1957.

INDIRECT CAUSE OF INCIDENT WAS A PARTIALLY PLUGGED ORIFICE IN THE HEL
SYSTEM. THIS CAUSED THE FLOW METER TO UNDER-READ THE ACTUAL
FLOW RATE. THE STOICHIOMETRY OF THE REACTION WAS NOT BALANCED.

~~SECRET~~

This document contains neither
recommendations nor conclusions of the
AEC or the disclosure of its contents
in unauthorized form is prohibited.

DECLASSIFICATION AUTHORIZED
MALCOLM THEISEN, EASI
Name (ADD) - Organization

04-10-96

Date

E. J. BLOCH

- 2 -

NOVEMBER 27, 1957

THE EXCESS HEX SATURATED THE CHEM. TRAP (ESTIMATED CAPACITY 2 KG. OF URANIUM) AND THE UNABSORBED HEX WAS VENTED THROUGH THE EXHAUST SYSTEM TO THE ATMOSPHERE AS A COLLOIDAL DISPERSION OF URANYL FLUORIDE. THE ONLY PHYSICALLY IDENTIFIABLE MATERIAL THAT PASSED THE TRAP IS THAT DEPOSITED IN THE STEAM HEATED VENT LINES TO THE STACK. THIS WILL BE RECOVERED.

THE INCIDENT WAS NOT BROUGHT TO THE ATTENTION OF THE LOCAL FBI OFFICE SINCE IT IS RECORDED AS A PROCESS EQUIPMENT FAILURE WITH NO POSSIBILITY OF DIVERSION SINCE THE SIX KG. LOSS NEVER ENDED AS AN ITEM OR IDENTIFIABLE BATCH AFTER ITS RELEASE.

ADEQUATE MEASURES ARE BEING TAKEN TO PREVENT THE FAILURE OF THE DETECTING SYSTEM BY IMPROVING THE INSTRUMENTATION AND PROVIDING FOR A ROUTINE TESTING PROCEDURE DURING OPERATION OF THE PROCESSING EQUIPMENT.

CONSIDERATION IS BEING GIVEN TO AN ADDITIONAL ALARM DEVICE THAT WOULD BE ACTIVATED BY HEX IN THE STACK. END REF OPA:EDM

CC: R. C. Armstrong
F. P. Callaghan

Distribution:

1A-Teletype Room
2A-R. C. Armstrong
3A-F. P. Callaghan
4A-Prod. Div. w/d
5A-NMBr. w/d
6A-S.R. Sapirie
7A-E. D. Marshall

~~SECRET~~

OFFICE	Nuclear Matls Control Bt	Prod. Div.	Operations	Manager
SURNAME	Marshall	Keller	Anderson	Waters
DATE	11-27-57	11/27/57	11/27/57	11/27/57